Title: Polysaccharide-enriched fraction from *Amillariella mellea* fruiting body improve insulin resistance

The present study prepared an alkali polysaccharide-enriched fraction (AAMP) from the edible fungus *A. mellea*. The hyperglycemic effect of AAMP was examined by high fat diet and dexamethasone co-treated (HFD/DEX) rat. The results showed that oral administration of high dose of AAMP markedly lowered fasting blood glucose, improving glucose intolerance and insulin resistance. AAMP also enhanced the expressions of two critical lipases ATGL and HSL, leading to a decrease of serum triglyceride. In addition, AAMP suppressed the expression of SREBP-1c, resulting in AAMP observably inhibited lipid accumulation in liver. However, the present research work only displayed preliminary advance and will not have significant impacts in the molecule-based medicines related research field. Therefore, this manuscript is not recommended to accept for publication in *Molecules*. In addition, there are some major comments to be addressed as following.

1. There were some minor typographic, grammar, and format errors to be found in the text, such as lines 38, 40, 42, 70, etc. Authors have to check and revise these errors.
2. The examined sample in this study was only partially purified fraction. The aim and scope of *Molecules* should be molecule-based rather than fraction.
3. In the bioactivity section, authors have to provide the data of positive control. According to Figures 3-6, the bioactivity data were not significant. The examined concentration is too high to make any readers interested. Lines 75-76, 84-88, the experimental results were not so significant and sentences provided by authors were overclaimed.
4. In the References section, the writing manner of some references did not follow the style of this journal. Authors have to check and revise these errors.